

AMENDMENT

IN THE CLAIMS

1. (CURRENTLY AMENDED) An actuator comprising:
a magnetic field generator, wherein the magnetic field generator is a single permanent magnet that is pivotally mounted about a pivot, and a north pole of the single permanent magnet and a south pole of the single permanent magnetic are on opposing sides of the pivot; and
an electromagnetic coil arrangement moveable relative to the magnetic field generator to define a first position of the actuator and a second position of the actuator, wherein the electromagnetic coil arrangement includes a frame and a magnetic core,
wherein, when the actuator is in the first position, a pulse of current through the electromagnetic coil arrangement produces a region of magnetic field that repels the magnetic field generator from the first position of the actuator and attracts the magnetic field generator towards the second position of the actuator to move the actuator to the second position,
wherein the single permanent magnetic has the first position wherein one of the north pole and the south pole is proximate the frame and remote from the magnetic core and the other of the north pole and the south pole is remote from both the frame and the magnetic core, and
wherein the single permanent magnetic has the second position wherein the one of the north pole and the south pole is proximate the magnetic core and remote from the frame and the other of the north pole and the south pole is remote from both the magnetic core and the frame.
- 2-3. (CANCELLED)
4. (WITHDRAWN) The actuator as defined in claim 1, wherein the pulse of current moves the magnetic field generator.
5. (WITHDRAWN) The actuator as defined in claim 1, wherein the pulse of current moves the electromagnetic coil arrangement.
- 6-7. (CANCELLED)

8. (CURRENTLY AMENDED) The actuator as defined in claim 1, wherein the electromagnetic coil arrangement includes a ~~the~~ frame ~~having~~ has a free end and a ~~the~~ magnetic core ~~having~~ has core ends and a side, and the frame is connected to one of the core ends of the magnetic core and extends along the side of the magnetic core, and the free end of the frame is spaced from the other of the core ends to provide the region of magnetic field.

9-12. (CANCELLED)

13. (PREVIOUSLY PRESENTED) The actuator as defined in claim 1, wherein the electromagnetic coil arrangement includes an end, and the region of magnetic field is located at the end of the electromagnetic coil arrangement.

14. (PREVIOUSLY PRESENTED) The actuator as defined in claim 13, wherein the electromagnetic coil arrangement includes a central region and an outer region, and the region of magnetic field is located between the central region and the outer region.

15. (PREVIOUSLY PRESENTED) The actuator as defined in claim 14, wherein the region of magnetic field is positioned over a limited circumferential extent of the electromagnetic coil arrangement.

16. (PREVIOUSLY PRESENTED) The actuator as defined in claim 1, wherein a first air gap is provided between the electromagnetic coil arrangement and the magnetic field generator when the actuator is in the first position and a second air gap is provided between the electromagnetic coil arrangement and the magnetic field generator when the actuator is in the second position, wherein a size of the first air gap is greater than 1 mm.

17. (CANCELLED)

18. (PREVIOUSLY PRESENTED) The actuator as defined in claim 16, wherein a size of the second air gap is greater than 0.5 mm.

19-25. (CANCELLED)

26. (PREVIOUSLY PRESENTED) The actuator as defined in claim 1, wherein the actuator provides security functions on a vehicle.

27-32. (CANCELLED)

33. (WITHDRAWN) The actuator as defined in claim 42, wherein the latch includes a latch housing, and the actuator is positioned in the latch housing of the latch.

34-39. (CANCELLED)

40. (PREVIOUSLY PRESENTED) The actuator as defined in claim 1, wherein a first air gap is provided between the electromagnetic coil arrangement and the magnetic field generator when the actuator is in the first position and a second air gap is provided between the electromagnetic coil arrangement and the magnetic field generator when the actuator is in the second position, wherein a size of the first air gap is less than 4 mm.

41. (PREVIOUSLY PRESENTED) The actuator as defined in claim 40, wherein a size of the second air gap is less than 4 mm.

42. (WITHDRAWN) The actuator as defined in claim 26, wherein the actuator performs one of the following functions:

- providing a lock/unlock function by blocking/unblocking a transmission path between a handle and a latch,

- providing a free wheel locking function in the transmission path between the handle and the latch,

- providing a superlocked function,

- providing a child safety function,

- releasing the latch, and

- latching the latch.

43. (WITHDRAWN) The actuator as defined in claim 26, wherein the actuator performs one of the following functions:

opening a fuel filler flap, and
unlatching the fuel filler flap.

44-48. (CANCELLED)

49. (NEW) The actuator as defined in claim 1, wherein the north pole, the south pole and the pivot are aligned along a straight line, and the pivot is located between the north pole and the south pole.